THE CHARACTER OF THE LANDSCAPE

The Thames enters the Greater London Area at Hampton. From Hampton to Erith, the river flows through the metropolis; an urban area even though much of the riverside is verdant open space, particularly in the first stretch between Hampton and Kew.

The character of the river is wonderfully varied and this chapter concentrates on understanding how that variety works. We have deliberately avoided detailed uniform design guidelines, such as standard building setbacks from the water's edge. At this level, such guidelines would tend to stifle rather than encourage the variety in character. Instead we have tried to highlight the main factors which determine the landscape character and propose policies to conserve and enhance it.

Policy LC 1: New development and new initiatives within the Strategy area should be judged against the paramount aim of conserving and enhancing the unique character of the Thames Landscape as defined in the Strategy.

The River

Although, being a physical boundary, the river is often on the periphery of county and local authority jurisdictions, it is essentially the centre of the landscape. The Thames has carved the terraces and banks which line its course, the valley sides drain down to its edges and the water acts as the main visual and physical focus. It is a dynamic force, constantly changing with the tide and reflecting the wind and the weather on its surface.

Between Hampton and Kew, the Thames is forced around Richmond Hill, flowing from south to north in a series of tight bends. It is not until Putney that the river resumes its gentler rhythm. The pronounced meander divides the landscape into a sequence of short reaches, visually separated by the bends in the river (see Chapter 3). Of the 7 main bends, 6 are dominated by open space (particularly on the convex bank), associated with local palaces and villas:

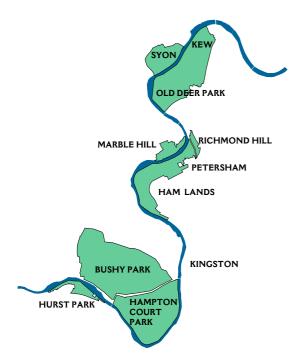
- Hurst and Bushy Parks
- Hampton Court Park
- Ham lands
- Petersham/Marble Hill/Richmond Hill
- Old Deer Park and Syon
- · Kev

Only the Kingston bend is without substantial areas of green open space.

Each bend is emphasised by islands deposited in the river, splitting the Thames into two channels. The majority of islands are thickly covered in trees, particularly on the up- and downstream ends and accentuate the divisions between reaches, separating settlements on opposite banks. The Isleworth and Brentford Aits in particular create individual side-channels with a completely different and discrete character. The side-channels, the short reaches and the narrow intimacy of the Thames through this area make this part of the river much more friendly for small boats and recreation than the downstream stretches.

The interaction between the course of the river, the islands and the open spaces contributes to the structure of the urban landscape, separating the city into a sequence of villages or small towns with individual communities and identities. These distinctions help to divide London into neighbourhoods which can function at a manageable level – at a size where people can feel they belong. The perception of London as a series of linked villages saves the city from becoming the dwarfing metropolis its actual area might suggest. The distinctions between each community are much clearer from the river than from roads, where ribbon development tends to create a continuous urban blur.

At the same time as separating distinct communities, the river and its towpaths also provide a physical and visual link between villages.



Policy LC 2: Enhance the river as the central feature in the landscape, conserving its bends, islands and open spaces to define the distinct communities along its banks, and promoting the water and towpaths as a linear link between the separate villages. Manage trees and woodland on the aits and promote native tree-planting in island gardens and on the up-and downstream ends of developed aits.

The Hills

The Thames has carved a broad flood plain. The blue-green hills to the north and south of the valley give a distant sense of enclosure and an impression of countryside beyond the metropolis. Churches rising from the hills act as prominent landmarks against the horizon. The line of the tree-covered Surrey Hills, pierced only by a sequence of spires, is particularly significant from Hampton Court Park, Kingston and Surbiton, as are the Chilterns from Richmond Hill.

In general however, the city is flat. Where hills do rise from the flood plain, for example at Hampstead, Harrow and Crystal Palace, they command fine views and invoke a special excitement in the landscape. The double drama of river and hill at Richmond creates one of the most spectacular topographies in the capital. Richmond Hill rises from the edge of the sharp bend in the river at Petersham, set off by the surrounding parks and meadows. The view from Richmond Hill is probably the most painted view in London, if not in Britain. Greenwich is the only other part of the capital where river and hill meet in a similar way.

Policy LC 3: Control building heights, open space and tree massing to conserve the drama of the relationship between Richmond Hill, the River and the Park.

The Views

Within the metropolis, the only chance of a **panoramic view** is usually from tall buildings or the occasional glimpse from high ground. Down below, the streets keep views short. In this part of London however, the large areas of continuous park and meadow land, the river corridor itself and the prominence of Richmond Hill, provide a number of spots where broad expanses of grass, water and trees stretch to the horizon. Views extend as far as Windsor Castle, Crystal Palace and St Paul's Cathedral.

In addition to the panoramic views, the Thames is linked by a **network of framed vistas**, connecting and ordering the landscape along and across the river. The vistas have a range of origins:

The avenues which radiate from the riverside palaces and villas still provide a major structure to the landscape. The history of royal and aristocratic patronage in this 11 mile stretch has left a legacy of more Grade I listed buildings and landscapes clustered together than in any other part of the country. The juxtaposition of large houses and estates and the progress of fashionable designers from one estate to the next, resulted in an unparalleled interconnection and integration of landscape design. Plan 5 and its overlays show how the avenues around Hampton Court, Ham, Richmond, Twickenham Park and Syon began to dominate the valley in the 17th century. By the 18th century further avenues at Upper Lodge, Sudbrook Park, Marble Hill, Cambridge Park, Whitton, Osterley, Kew and Chiswick were providing the major structure to the landscape, linking the main houses and organising the layout of the parks and gardens. The 1752 Heckel view from Richmond Hill shows the flat flood plain webbed with avenues; a view which remains remarkably unchanged 250 years later. During the 19th century some of the avenues were lost and some, such as the Nesfield layouts at Kew, were added. But even as we approach the 21st century, the basic 17th-century structure of avenues and vistas survives.



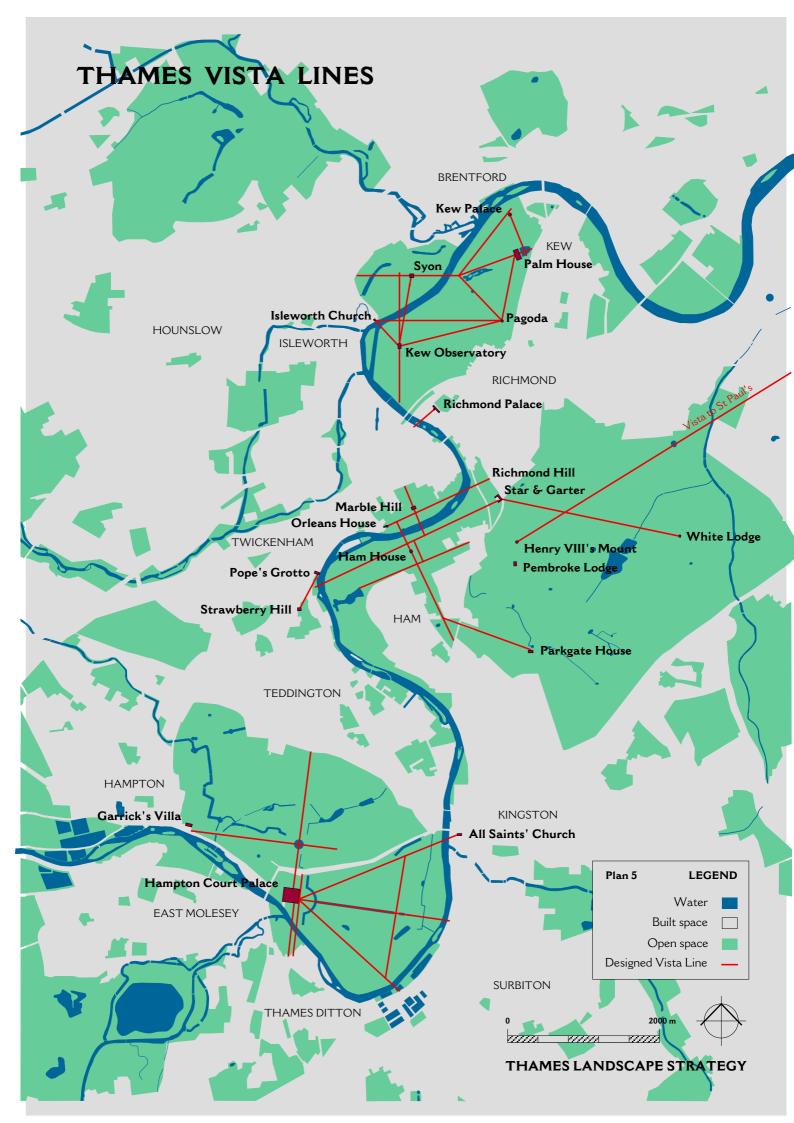
The distinct village waterfront at Hampton

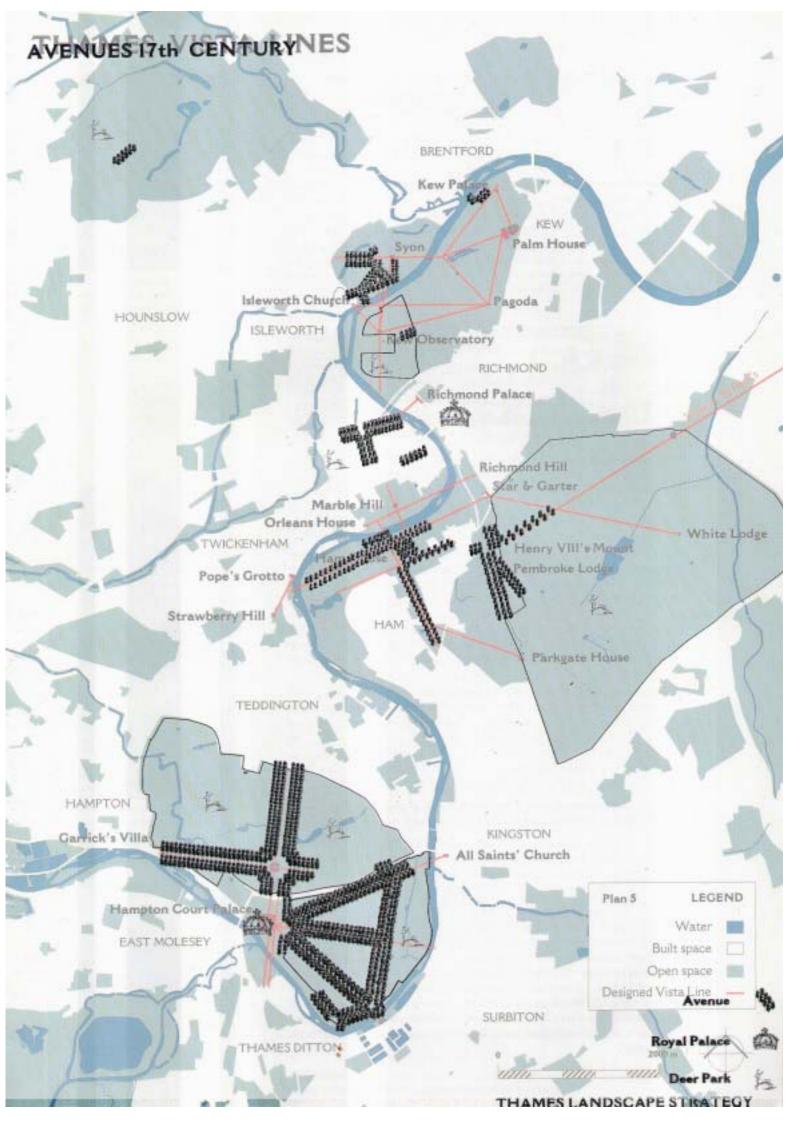


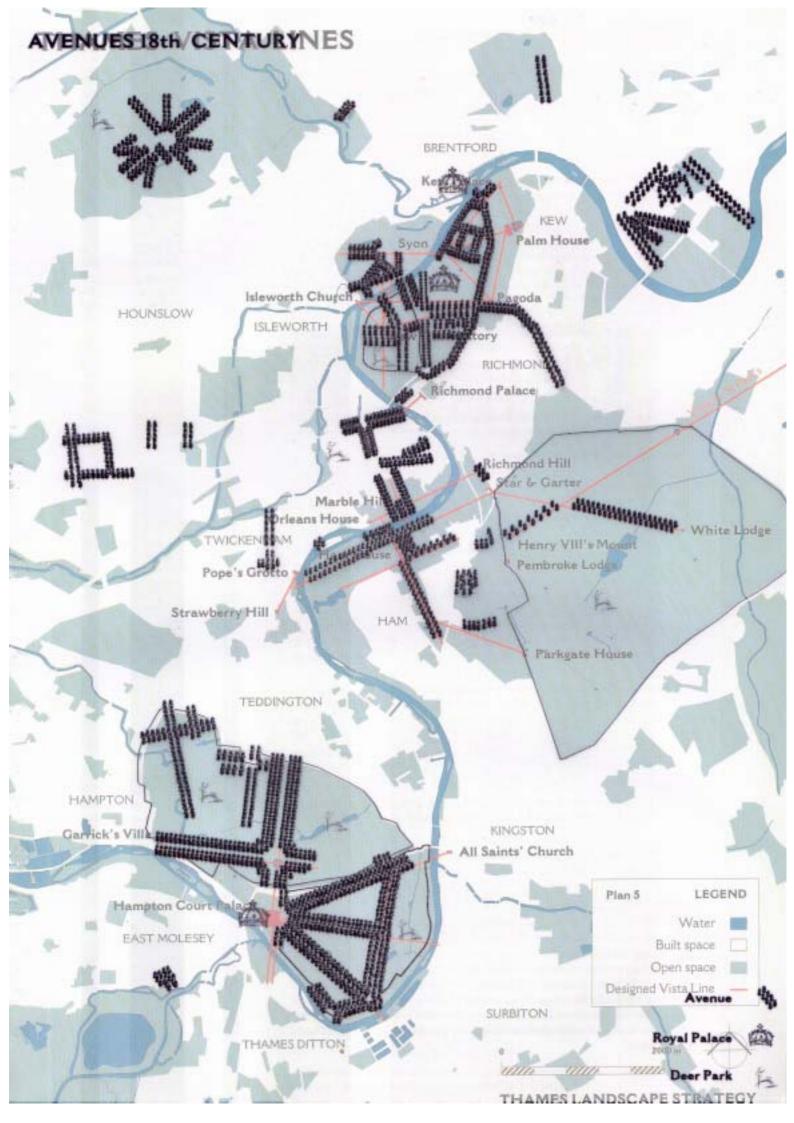
Farington's 18th cent. view of Richmond Hill from the river remains much the same today

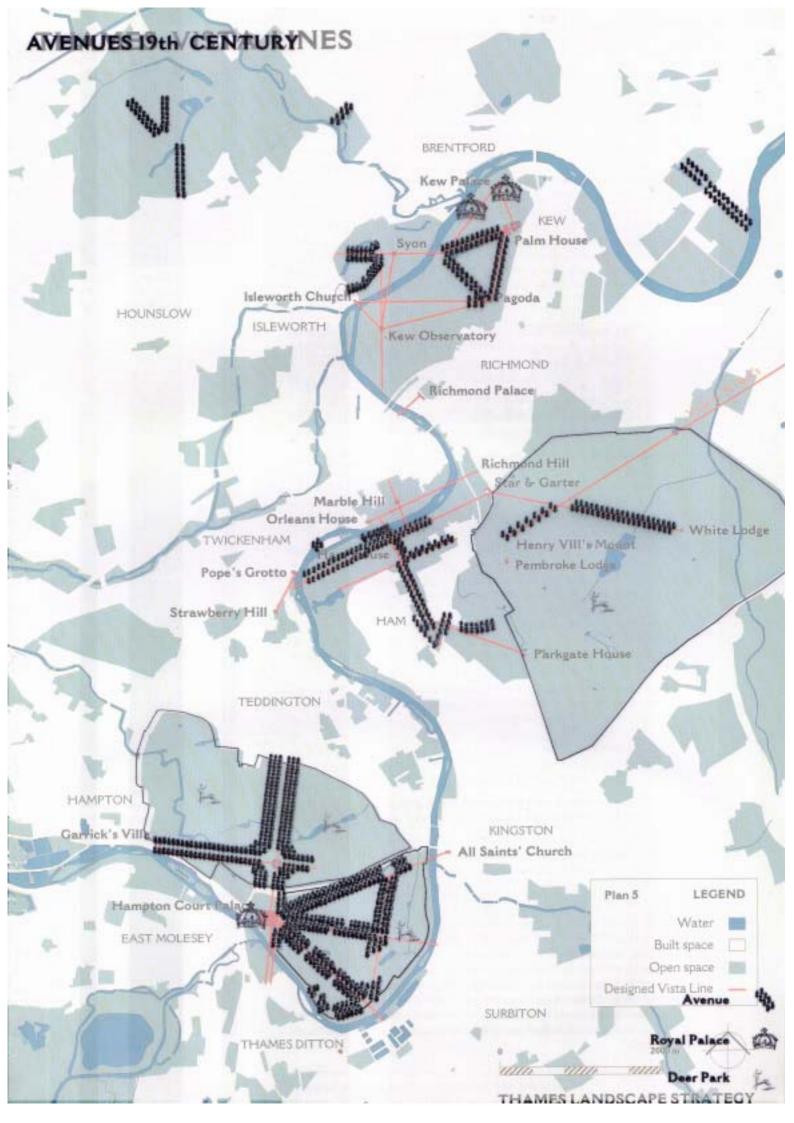


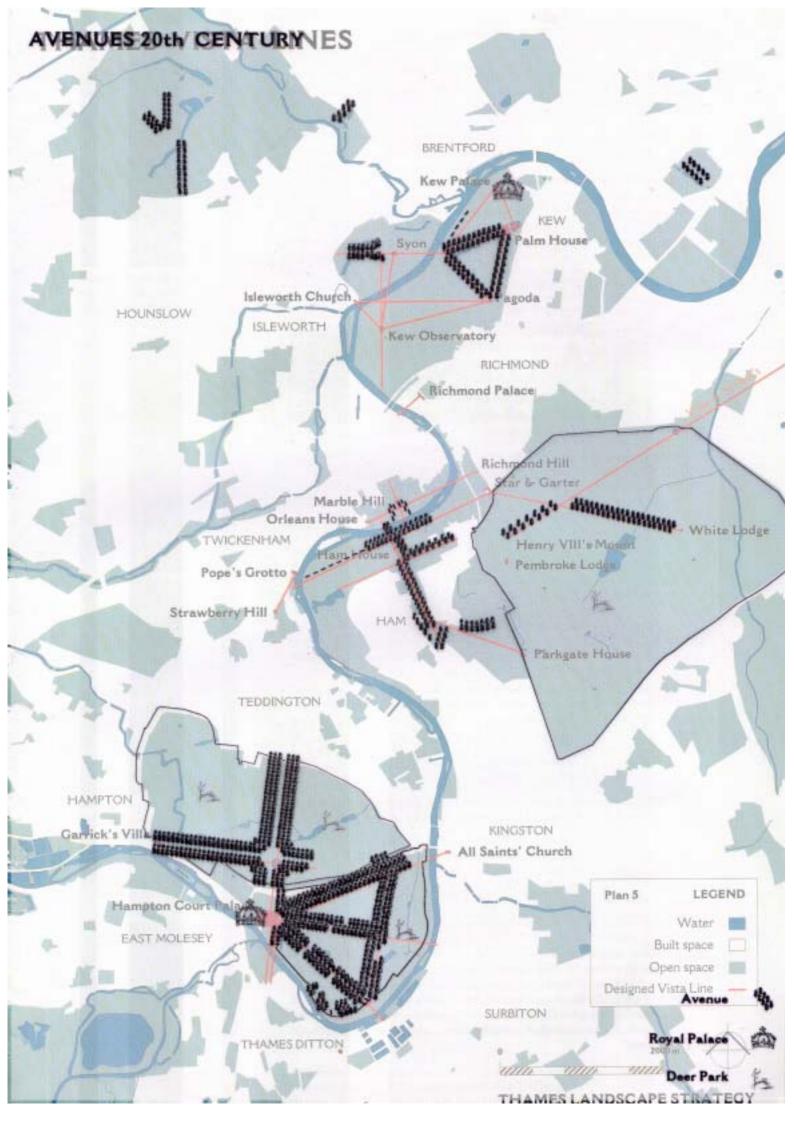
Knyff's birds-eye view of Hampton Court and its patte d'oie



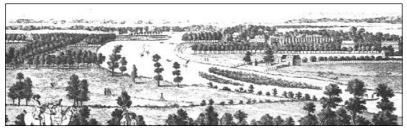








- Communication sightlines formed another kind of long-distance vista.
 Richmond Hill, as the highest point for miles around, commanded views for
 hunting, defence and beacon communication. The vista from King Henry
 VIII's Mound in Richmond Park to St Paul's Cathedral in the City is among
 the most impressive sightlines in London, especially at night. This is now one
 of the capital's strategic views, protected by government directive.
- Astronomical measurement influenced much of the landscape layout between Richmond and Kew. The King's Observatory was built in 1769 for George III to observe the passage of Venus. Sightlines were opened through the surrounding Old Deer Park to obelisks on the edges of the river to the north and south. The King's time for the Houses of Parliament and the Horse Guards was set from the Observatory meridian obelisks until Greenwich took over at the end of the 18th century. The obelisks and sightlines survive under scrub growth and golf course planting.
- Informal views across or along the river were pioneered by Brown,



The network of avenues across the valley below Richmond Hill - Augustin Heckel 1752

Chambers, Pope and Walpole as a new way to look into the 'natural' landscape. Many of Chambers' vistas from Kew have been obscured by trees; Brown's tree clumps, framing views of Syon, have been joined up by scrub invasion, hiding the house and meadow; the glimpse of the river from Pope's grotto at Twickenham has been temporarily blocked by a science laboratory; the vista from Strawberry Hill to the Thames is being squeezed out by suburban housing; and views of the water from the towpath are being blocked by scrub growth. None of these intrusions is irreversible and the principle of vistas to and from the special features along the Thames fits well with contemporary urban structure. Vistas can inform and orient visitors and connect the landmarks along the river. A sense of the space and continuity of the landscape can be achieved through framed sightlines, even where developments have intruded into the wider panoramic views.

The degree to which this particular landscape has evolved, with such an elaborate network of connected vistas, is most unusual. That many of the avenues, sightlines and informal views have survived or have only been interrupted by scrub growth or temporary structures is exceptional. The landscape between Hampton and Kew presents a unique opportunity to conserve the separation between discrete communities and at the same time to revive the visual and physical connections which link them together.

Policy LC 4: Conserve and, where appropriate, re-instate the exceptional network of visual connections which has evolved over the last four centuries.

The Landmarks

Landmarks in a city help to provide a focus of identity as well as a beacon for orientation. The river itselfacts as the main landmark or orientation point, but vertical elements which can be seen from some distance are also important. Churches, with their towers and spires, are common landmarks. They also tend to occupy ancient sites, around which settlement has been organised for some time. Palaces, villas, bridges and prominent buildings may be lower and more horizontal, but given the right setting, they can perform the same function. Even unusual trees, such as stone pines and cedars, will form significant landmarks. The recent Task Force Trees report, *Action for London's Trees*²¹, urges local authorities to identify and take special care of such 'premium trees'.



St Paul's Cathedral at night - the 10 mile vista from King Henry VIII's Mound in Richmond Park



The northern meridian obelisk, hidden under sycamore scrub growth

The continuing effectiveness of a landmark is not simply a question of ensuring that the feature is not blocked from view, it also depends on its surroundings:

- The backdrop, usually trees or sky, needs to act as a foil, particularly when
 the landmark catches the light. The visual power of St Raphael's Church in
 Kingston, for example, depends on surrounding trees screening out the
 competing buildings. And the drama of the spire of St Matthias' Church comes
 from its position on the crest of the Richmond Hill, soaring above the
 surrounding trees and buildings.
- The frame to the view can compensate for the immediate surroundings to the landmark and focus attention on a single feature. The Richmond Park keyhole vista and avenue make St Paul's stand out from the remainder of the City and the Hampton Court Avenue frames All Saints' Church across the river in Kingston.

On a more intimate level, features such as railway stations and pubs serve to guide people around their neighbourhood. These elements operate on a more personal and local level. They depend less on set sightlines and more on daily usage.

Policy LC 5: Identify, conserve and reveal the main landmarks of the area, with particular concern for the frame and backdrop to the view. Where appropriate, new developments should contribute fresh landmarks and foci to work with the existing urban pattern.

The Architectural Waterfronts

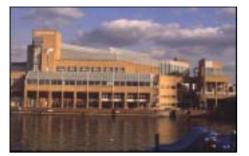
Each historic town centre along the river addresses the water in its own way. The smaller centres of Hampton, Thames Ditton, Twickenham and Isleworth still cluster together around a church with a core wharf or embankment. East Molesey and Teddington focus on their locks. Kew and Ham have grown around their greens. And the three main commercial centres have developed quite distinctive characters, differing markedly in architectural style, scale, set-back from the river and use.

Kingston, historically the main market place, has large-scale timber yards, the power station and new shopping developments close to the water's edge, standing out sharply from the surrounding suburban housing. Brentford's industrial and dock yard frontage rises sheer from the river. The area has fallen into decay, but plans are underway for regeneration. Richmond steps back from the river, with parks and terraces rising to houses and offices. The Richmond Riverside development and the Kingston John Lewis project show very different approaches to the historic waterfront. Each project responds to the style and ethos of the town it fronts. Kingston, for example, has historically been the main market in the area, while Richmond's palaces and villas have been set above riverside lawns.

So long as these towns are separated by open spaces into discrete identities, the contrasts contribute to the variety and vibrancy of the river. Where the large scale buildings of Kingston straggle along the Portsmouth Road as a line of apartment blocks, the divisions with Surbiton and Thames Ditton are blurred and the strength of the river landscape reduced.

Design details, building materials and colours combine to contribute to the character of each waterfront. Again, every waterfront tends to have its own style. In Brentford, for example, the London brick of the Steam Museum tower and the surviving Victorian industrial and dock yard architecture, has influenced new development. In Twickenham around the White Swan waterfront, the Georgian houses cluster together in bright white against the backdrop of trees. East Molesey retains an Edwardian character around the lock, reminiscent of Sisley's paintings. And Kingston has developed a scale and modern style of its own (see Chapter 3).

The actual river edges in each town tend to be more similar. Brick and stone embankments and steps rise vertically from the water, stepping back to slipways or out to wharves in response to the docking and loading for which they were built. At Twickenham the wharves are still used for boat repairs, but mostly the waterfronts now serve tourist boats and pedestrians. The stone embankments, cast iron railings and slipways offer contact with the water and a series of unusual



New development beside Kingston Bridge reflects the town's history as the main market in the area



New development beside Richmond Bridge reflects a different tradition of terraces stepping back to offices and houses



The tower of the Steam Museum soaring over new development at Brentford

and exciting spaces within easy reach of the town centre. Particularly where the waterfronts are backed by pubs and boat sheds, the spaces are filled with people strolling, drinking, sunbathing or just sitting and watching. These waterfronts provide some of our most popular and successful urban spaces.

Policy LC 6: Conserve the distinct characters of the different waterfronts. New developments should be inspired by their context, complement the particular style, colours and materials of each waterfront and contribute to the public enjoyment of the river edge spaces. Where possible the established diveristy of riverfront uses should be retained as part of a varied and vital community.

The Small Riverside Parks

The small, municipal waterside parks are generally less successful public spaces than the hard waterfronts. At the height of Edwardian maintenance, these parks would have been trim and colourful with beds of annuals. Some parks, such as the Richmond Terrace Gardens and the Kingston's Queen's Promenade, are still well-kept and highly popular. But in general the parks are suffering under current financial constraints

Government cut-backs have affected leisure services departments in particular. Faced by reduced budgets, local authorities have been forced to cut expenditure on maintaining public spaces, which have been seen as less urgent than, for example education or highways. Gradually the parks have fallen into neglect. Crumbling walls, graffiti, closed-down lavatories, dusty shrubberies, broken asphalt, burntout seats, litter and dog faeces are turning the municipal parks into unwelcome places for children to play or adults to relax.

Some parks have become dominated by formal recreation facilities and separated from the river by wire netting or close-board fencing. A survey into local use and priorities for public parks in Kingston, undertaken for the Borough in 1993, has demonstrated that informal spaces with nature conservation and amenity value are highly prized along the river's edge. The report concluded that quiet and informal recreation should be the primary consideration in urban parks. ²²

Potentially these small parks, close to the water and linked by a waterside promenade, could provide really attractive urban spaces. At the very least, symbols of neglect such as broken benches should be removed until funds can be found to repair them. But ideally the parks, which represent substantial public investment in the past, need to be re-instated and designed to:

- meet current demands;
- relate to the water;
- · create greater nature conservation interest;
- provide adequate seating;
- provide adequate safety and disabled access;
- control litter and dog faeces;
- offer occasional performance spaces;
- have a fresh and inviting character; and
- be maintainable within current budgets.

The initiatives taken by the Friends of Radnor Gardens give a good example of a possible way forward. Local residents work with the local authority to consult, design and raise funds for improvements to their park. Since 1987, the Friends of Radnor Gardens have raised £48,000, restored two pavilions, promoted much greater use of the park and arranged a series of events such as National Music Day.

Policy LC 7: Restore or re-design small, municipal waterside parks to make the most of the river and enhance nature conservation interest. Encourage the involvement of local interest groups to create spaces they can use and enjoy.

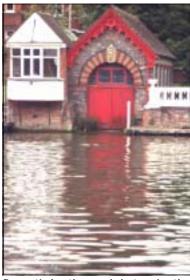


The working waterfront of Eel Pie Island opposite Twickenham Embankment



Vandalised benches between Orleans House and Marble Hill

Low wooden bungalows on the aits are being replaced by two-storey brick houses with picture windows



Domestic boathouses help to give the river its special character



Converted boathouses at Lower Ham Road, Kingston

The Private Gardens

Long stretches of the riverside open space are made up of private gardens, particularly through Twickenham, Teddington and Thames Ditton. Some of the islands too, such as Garrick's and Tagg's Aits, are covered by bungalows and their gardens.

Many of the gardens are substantial, full of mature trees and form a significant part of the landscape structure and nature conservation resource. In areas such as Teddington, houses are set up to 50 metres back from the water's edge, barely visible through thick trees. In others, such as the recent terrace developments at Thames Ditton, the houses form a continuous, harsh line on the water's edge with no softening trees or vegetation. The white paint of stucco or fencing in full sunlight can begin to dominate the scene where there are no trees to provide shade or mask the impact. The shape and species of trees are important. Bright exotic trees and dark conifers jar on a landscape of native deciduous trees. And the character of the aits is changing with the gradual replacement of low, wooden bungalows by two-storey brick houses with picture windows. Their gardens, which used to run down to open wooden jetties, are increasingly becoming hidden by concrete block walls.

In side channels or discrete reaches, cheerful domesticity can add a welcome variety to the river. Where continuous suburban development begins to merge one community into the next, the housing can become oppressive. Garden tree planting does much to reduce the impact of houses on the river, though this has to be balanced against residents' loss of light and views. Riparian gardens merit advice and, where they have a significant influence on the river character, control and assistance on tree planting and bank treatment. Advice should cover tree size, species, positioning and bank integrity.

Garden and street trees some distance from the river also contribute to the river landscape. The garden and street trees to the south of Hurst Park and on the Surrey Hills, for example, create the backdrop to the riverside open spaces. Local authority policies, controls and agreements, such as for underground cable-laying, need to take account of the importance of these trees in the wider landscape.

Policy LC 8: Provide advice and assistance on private riparian garden tree planting, maintenance and bank treatments, and control housing heights and set backs to minimise intrusion into the river landscape and retain the sense of rural green space and wildlife interest between and through towns.

The Boathouses

Domestic boathouses at the foot of private gardens contribute a unique architectural element to the river's character, particularly upstream from Twickenham. Many of the boathouses date from Edwardian times. The eccentric designs, in wood, glass and stone, rising from the edge of the river, catch the eye and relate directly to the water. The architecture of the boathouses, balconies and barge boards of the riverside houses in places such as Broom Water, Teddington, influence the style of houses further inland. In other areas, such as Thames Eyot in Twickenham, the old boathouse, balustrade and pavilion are the only reminders of the 18th century Poulett Lodge, replaced by a block of flats in the 1930s.

Boatclub houses and sheds also form an important part of the river architecture. Some are substantial two-storey brick buildings, while others are small wooden sheds or arched foundation structures for larger developments, such as the Richmond Riverside and St Helena Terrace. Even where clubhouses have been converted to new business uses, as at Lower Ham Road, the architecture still contributes to the character of the river. But the most successful situations remain where the activity and paraphernalia of boat use and repairs continue to bring the river edge alive.

Many of the domestic boathouses have fallen into disrepair and some are in danger of collapse. The Victorian Society is particularly concerned about the conservation of these buildings and about the demolition of places such as Tagg's Boathouse for modern office and residential developments. The new English Heritage Conservation Area Partnership Scheme may give scope for grant aid where building repair and area enhancement are a priority.

Policy LC 9: Conserve domestic and club boathouses along the river, with advice, grant aid and controls commensurate with the Thames Area of Special Character. Encourage the inclusion of new boathouses in future riverside re-developments.

The Boatyards

Boatyards are some of the most important features in the special identity and river-related life of this landscape. They are also the most vulnerable. Yards such as Tough's at Teddington and Turk's at Kingston are family concerns. Tough's dates back to the last century and is still being worked by the seventh generation. Foreign competition, rates and recession make the future precarious and the prospect of selling the land for development very tempting. Local authorities have difficulties in sustaining refusals for applications for residential or retail use where yards appear not to be viable.

The river today probably has less traffic than for centuries. The potential of the relatively open route through the centre of congested London is being examined by the Department of Transport Thames Working Group. One of the concerns of this Working Group is the plight of boat building and repair yards along the river. If transport is to be encouraged back onto the water, the support facilities will also be necessary.

Small-scale businesses and industries co-exist well with the random buildings and relatively low rents of the boatyards. The activity and revenue from these businesses contribute to the life of the boatyards and have few alternative sites in the area.

Without this working character the river would be a much blander place. The activity which Eel Pie Island brings to the Twickenham waterfront; the colour and energy of Swan Island; the random low-rental workshops of Tough's Boatyard; and the industrial scale boat workshops of Platt's Eyot, bring the riverside alive.

The character of the boatyards comes from their work. The outward style and appearance cannot be maintained artificially if the businesses which generate them have died. Ultimately it is a question of economics rather than planning or design. Government commitment to river transport, and support for the boatyards which service it, will be a critical factor. Availability of boat sheds for storing craft will also affect demand for new boats. The yards need to be financially viable. Planning can help to reduce the pressure on boatyards to sell by making clear that large-scale, non-river-related developments, such as major supermarkets, will not be acceptable on the sites. This reduces the strain of inflated land values.

However, where boatyards fail in spite of all efforts, there may be possibilities for new mixed uses where small river-related businesses can continue to use the water frontage and boats can be stored, supported by some residential development on the site. At least in this way part of the activity, scale and complexity of the river edge can be retained and not replaced by monolithic developments and car parking.

Policy LC 10: Wherever possible help to conserve the boatyards as viable enterprises which contribute greatly to the activity, character and use of the river. Discourage replacement by large scale, non-river-related developments, but seek to retain as much of the scale and water-oriented uses as possible where re-development becomes inevitable.



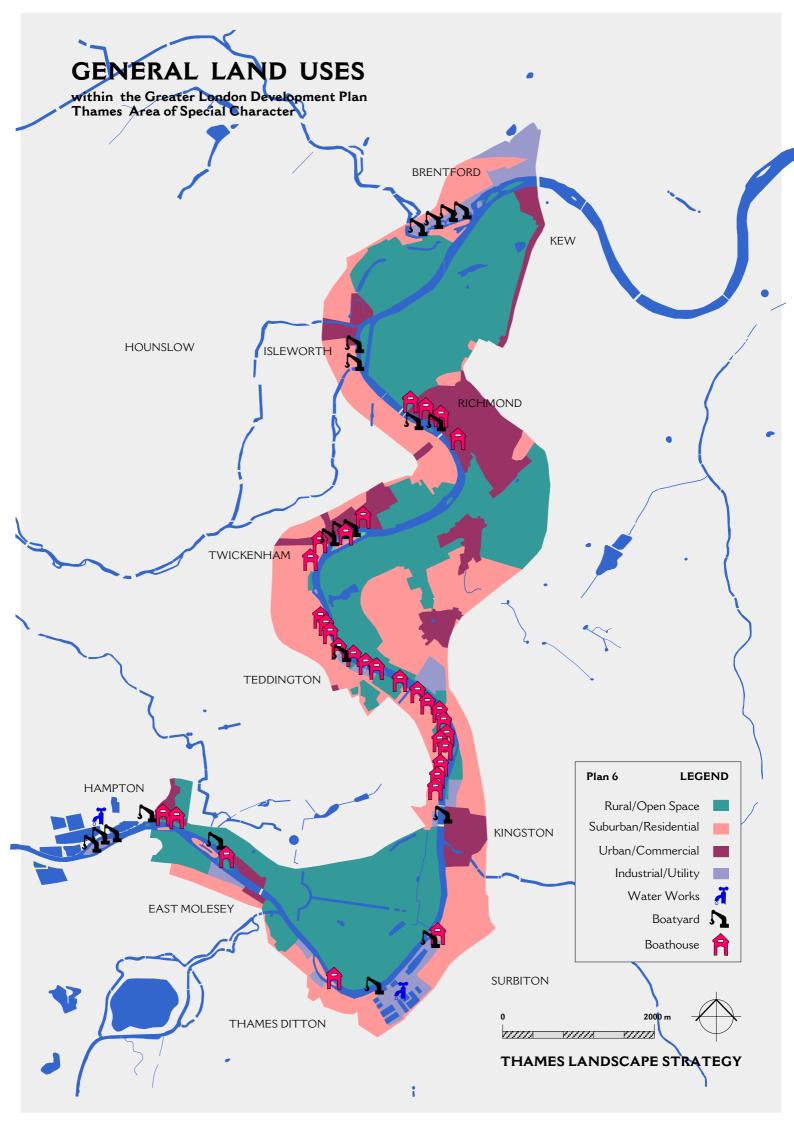
Domestic boathouses add a special character to the waterfront - albeit a vulnerable one



Boatyards opposite York House on Eel Pie Island



Boatsheds at Richmond Pier provide muchneeded work and storage space and contribute to the character of the waterfront



The Houseboats

A number of boatyards are linked to houseboat communities. Houseboats at Kew, Brentford, Isleworth, St Margaret's, Thames Ditton, Hampton and East Molesey provide a special character and life on the river's edge. In places such as Tagg's Island, some of the houseboats are architectural *tours de force* in their own right, dating back to the heady days of Edwardian recreation.

There are problems of servicing, water pollution and parking which lead to the communities being regulated and contained within certain areas. Houseboat moorings and location are subject to Port of London Authority licensing (on the tidal Thames) and local authority planning permission. Health and hygiene matters are regulated by the London Port Health Authority. But where the problems are resolved, the colour, design, gardens and life which the boats bring to the landscape is much richer than the strings of modern fibre-glass cruisers, parked along many waterfronts.

Policy LC 11: Conserve the communities of houseboats along the river, regulated by pollution, servicing and parking controls commensurate with the Thames Area of Special Character.

The Moorings

Boats of particular historic or aesthetic interest add to the character of the river landscape, be they moored or travelling through. Enjoyment of the landscape from the water should be encouraged, but the problem comes with large numbers of modern motor boats, particularly when they are moored in the centre of the channel or parked several deep against the bank. The boats obscure the water from the land and crowd the channel.

Moorings are particularly intrusive in front of historic buildings and vistas.²³ Vessels moored in front of the Privy Garden at Hampton Court and Marble Hill at Twickenham, for example, detract from the historic water frontages.

Moorings in basins off the main channel, such as the Thames Marina at Seething Wells, can accommodate large numbers of boats very successfully, while still maintaining open space with nature conservation interest on the edge of the river.

Policy LC 12: Regulate mooring to numbers and locations where they do not detract from the character of the river or intrude into historic vistas. Encourage the re-use of redundant basins off the main channel for marinas and river-related activities.

The Tide

Tidal fluctuations cause local flooding in places such as Richmond and Twickenham, particularly when spring tides coincide with prolonged, heavy rain. At other times the river becomes low and unnavigable, with areas such as the Brentford channel emptying completely to reveal a river bed of mud and shopping trolley skeletons. River pollutants become concentrated in the low volume of water.

These extremes have led to suggestions to build a new lock at Kew or even use the Thames Barrier to make the entire river through the capital non-tidal. Although these solutions may eliminate the vagaries of the tide, they would remove a significant part of the appeal of the river. The constant change in water level, brings a dynamism and unpredictability to the landscape, muchappreciated by local residents. The dramatic tidal range, exacerbated by bridges and embankments provides daily evidence of London's connection to the sea and the presence of a powerful natural force running through the middle of the city. Any move towards non-tidal conditions would also have severe implications for nature conservation in the inter-tidal zone of the river.

The existing floodplain areas, especially Syon tide meadow, the Old Deer Park and towpaths, provide a critical flood alleviation resource as part of the floodplain. Opportunities to re-instate floodable areas would greatly assist in the management of the river.

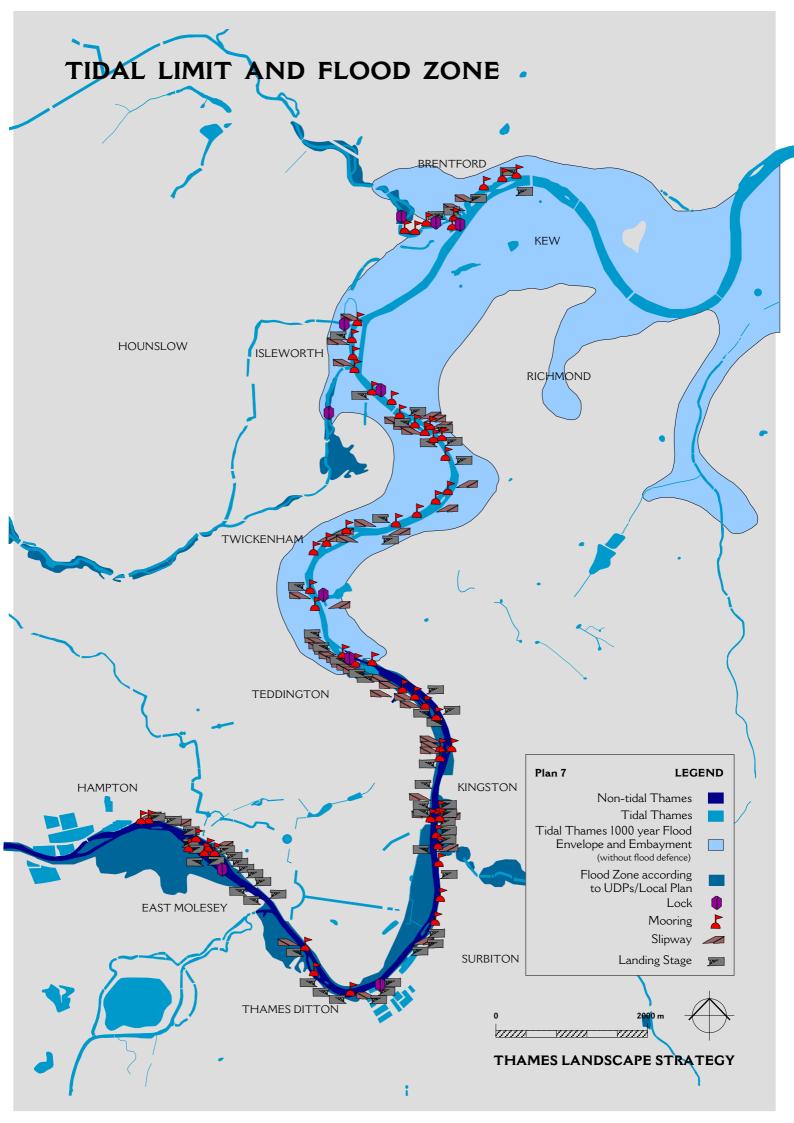
Policy LC 13: Retain the Thames as a tidal river as far as Teddington Lock, conserving and where possible re-instating floodable areas in the floodplain, both in tidal and non-tidal stretches.



Moorings at Albany Reach



A particularly high tide in Richmond



The Banks

The land meets the water in a variety of different designs along this stretch of the Thames. On the non-tidal river, for example at Hampton, gentle banks and beaches support riparian plants and nesting wildfowl. Downstream at Kew massive concrete revetments are hostile to plants, birds and humans. Along much of the river, particularly around the islands, vertical sheet piling is common and in places built development has encroached into the river channel.

Bank treatments need to achieve a number of objectives, some based on management of the river for navigation and flood control:

- protection from erosion, particularly caused by tidal scour and boat wash;
- protection from flooding;

and some based on amenity and nature conservation:

- access and nesting sites for wildfowl;
- conditions for riparian vegetation to establish;
- access for boaters to the land and walkers to the water.

Responsibility for the banks can be confused. In many cases the local authority or private landowner maintains the river edge, but in others the NRA, PLA and even the Crown Commissioners have responsibility for the banks. River engineering is expensive and scenes of neglected banks are becoming widespread, be they eroded banks of granite sets or concrete panels peeling off into the water. Not only are these banks unsightly, in many cases they are unsafe.

Some of the engineering solutions can be less attractive and hospitable to nature conservation than the neglected banks. The NRA is undertaking extensive research into more appropriate bank design solutions²⁴, experimenting with methods such as willow spiling, reed beds, gabions and geotextile mats. It is also examining the degree of protection needed. The Thames tidal barrier has reduced the risk of flooding in the capital and it may now be possible to review the design of some revetments, while still maintaining essential flood defence levels. Control of motor boat speeds could also do much to reduce erosion problems from boat wash (see *RL 13*).

There are general issues and conflicts to be resolved in enhancing the banks. For example bank vegetation can improve the appearance and nature conservation interest of the river edge but it may also bring problems. Overhanging trees can provide cover for nesting grebes, for example, but they can also obstruct the channel, trap litter, shed branches and their roots can undermine bank protections. Dense scrub can block the river views and access from the towpath. In each case it is important to weigh the risks and priorities.

Policy LC 14: Maintain banks in a safe and serviceable state, while at the same time consulting with the NRA, English Nature, LEU and LWT to achieve methods of protection which are attractive to wildlife and river users. Control boat speeds to minimise erosion problems and prevent any new buildings from encroaching into the river channel.

The Bridges, Locks and River Structures

The bridges and locks which cross this stretch of the river are fine examples of architecture and river engineering. Kingston Bridge was designed by Edward Lapidge in 1825, Richmond Bridge by James Paine in 1774, Kew Bridge by Sir John Barry in 1899, Hampton Court Bridge by Lutyens and Twickenham Bridge by Dryland and Ayrton, both in 1933. The bridges act as focal points in the landscape, dividing reaches and acting as entrances to the riverside towns.

Each of the locks has its own particular style. At East Molesey the roofed weirs and wooded islands and banks give a sense of peaceful enclosure. The open structures and rushing water at Teddington provide more drama. And the lock and weir at Richmond, superimposed on the railway bridge and viewed against Richmond Hill, is both elegant and technically brilliant.

The structures are being kept in good repair. Richmond Bridge, for example, has been resurfaced by the Borough and Richmond Lock has been restored by the PLA at a cost of $\pounds 4$ million. However the railway bridges need



Banks are subject to erosion from boat wash



Extreme bank protection measures which could be more sensitively handled



The fine arches and technical innovation of Richmond Weir, restored for its 1994 centenary by the PLA



The Seething Wells Waterworks Site - 7ha of waterfront due for re-development between the road and the river



The Kingston Powerstation Site - closed down and due for re-development

repainting and the GLC *Thames-side Guidelines* noted the need for imaginative colour and lighting designs to highlight bridges.

Pedestrian bridges also play an important part in the river architecture, particularly the iron bridges at Teddington and Thames Ditton. On a more humble but equally important level, the river structures of steps, stone walls, draw docks and slipways contribute to both the character and active use of the river

Policy LC 15: Conserve the locks, bridges and river structures along the river, maintaining them in good repair, free of graffiti and, where appropriate, improving paint and lighting design.

The Major Utility Sites

Large-scale Victorian and pre-war power and water facilities occupy significant areas of the river's edge. The Seething Wells site at Surbiton covers 26.5 hectares (7 hectares between the road and the river). There are also extensive settling basins and filter beds up- and downstream at Hampton Water Works and Barn Elms respectively. These water bodies provide some of the largest areas of open space along the river, helping to bring relief in the built environment and open distant views. The filter beds have also become habitats of nature conservation value.

As utilities have been modernised and rationalised, these facilities have become redundant. The power station at Kingston has been closed down, the gas works at Brentford have been demolished and Thames Water is pursuing the sale and re-development of its works at Seething Wells. Within a few years, some of the most prominent structures along the river and substantial areas of the river frontage will be re-developed. The sites, bordering the water and close to town centres, promise rich re-development prospects and high financial returns. They also have great significance for the structure of the landscape, the character of the river, and possible amenity, recreation and nature conservation value. These sites offer as much potential for enhancement of the river environment as they do for degradation.

Policy LC 16: Guide re-development of the major utility sites to make the most of the amenity, river-related recreation and nature conservation potential. Development should be informed and inspired by the critical role these spaces play in the river environment, the urban structure and the surrounding landscape character.

The Industrial Sites

There is little large-scale industry along this stretch of the river. The major industrial enterprises around the Brentford docks have largely closed down and the British Aerospace site at Kingston was cleared in 1993.

Warehouses at Hampton Wick and Thames Ditton have been converted to offices, though the scale and character of the architecture has remained. The Hampton Wick timber yards have been reduced in size but continue to function. Some industry has been introduced into the Seething Wells complex in Surbiton.

Infrastructure constraints, land values and economic re-structuring make this upstream section of the Thames a difficult location for large-scale industry. Where industry survives or transhipment and distribution facilities could be re-introduced, the character and versatility of the river would be enhanced. On the non-tidal river, the main issue now is how to guide the re-development of the obsolete industrial sites to work with the economy of the area and the character of the river. There are great opportunities at Brentford and Kingston to bring new life and attractive design to the derelict industrial sites.

Policy LC 17: Conserve and re-instate industrial waterfronts where possible. Guide any re-development of large-scale industrial sites to complement the scale, character and urban structure of the surrounding waterfronts and make the most of the amenity, river-related recreation and nature conservation potential. New vistas and access routes should be incorporated into redevelopment.

The Built Recreation Sites

In addition to the redundant utility and industrial sites, there are a number of riverside built recreation facilities which have been closed down. For example, the Ice Rink at East Twickenham was demolished in 1992 and the swimming baths at East Molesey and Twickenham are closed, awaiting re-development.

Once again these are significant spaces on the river's edge and close to town centres facing pressure for retail, residential or office re-development. Retention in built recreation use may not always be the answer. Multiplex cinemas and bowling alleys, for example, can be as intrusive in the river landscape as any major retail development.

These sites have a major effect on the urban pattern and land use, particularly on the way that the space relates and connects to the river.

Policy LC 18: Guide re-development of built recreation sites to complement the scale, character and urban structure of the surrounding waterfronts and make the most of the amenity, river-related recreation and nature conservation potential. New vistas and access routes should be incorporated into redevelopment.

The Paths

This part of the river is particularly well-connected by towpaths, barge walks and footpaths. Local authority policies, and the Thames Path National Trail and West London Waterway Walks projects are working to link the missing sections and connect to adjacent towns, parks and Thames tributaries.

The paths vary from paved urban embankments to rural gravel tracks. Path surfacing, lighting, signing, fencing, benches and bins all contribute to the character of the area. Path design must respond in a variety of ways to the needs of disabled access and safety. The maintenance of these public areas also affects the character. The prompt removal of litter, graffiti and vandalised elements, such as benches, indicates an important respect and attention to the landscape.

Much of the charm of the river walks comes from the contrast between the urban and rural stretches, and these should be emphasised by appropriate treatment of the paths and public spaces. For example, asphalt paving, concrete and sodium street lights, chain-link fencing and metal bins and benches do not fit the character of rural paths or historic villa and park waterfronts. Similarly the number, size, design and location of signing needs to reflect the character of each stretch.

The perceived width of the path and public zone also has an effect. In urban areas where warehouses and boat sheds have needed to be close to the water's edge, frontages are sometimes as narrow as 3 metres. Continuing use of boat sheds, pubs and cafes spilling out onto the waterfront, create lively crowded spaces. Large gaps in these urban waterfronts can reduce the sense of enclosure and intimacy.

Priorities are different for the paths around areas of extensive open space, such as the Old Deer Park and Ham Lands. The public open space here can be up to a mile wide. However over the past 20 years, scrub and riparian vegetation invasion have narrowed many of these paths into tunnels. In some cases the river is blocked from view and there is no sense of the wider open space. Leafy tunnels are attractive, but they can become monotonous and even threatening.

The steady encroachment of sycamore seedlings, willow scrub and elm suckers over the last couple of decades is gradually changing the landscape. By obscuring the views, the scrub is blocking out the main features which people have come to enjoy - the water, the meadows and the hills. Glimpses can be revealed without massive tree removal. In many cases, it is just a question of re-instating management practices which have only recently lapsed.



Asphalt paving, concrete and sodium street lights, chain-link fencing, graffiti and metal bins and benches do not complement the character of rural paths and historic villa and park waterfronts



Leafy paths through more rural areas contrast well with the urban waterfronts, though scrub growth between the towpath and the river is obscuring the view

Traditionally the strip between the towpath and the river would have been kept clear for pulling boats and barges. The sense of tree'd enclosure to the river can still be retained on the landward side of the path while keeping the actual river banks more open. The nature conservation implications of any clearance should however always be assessed.

Policy LC 19: Conserve and emphasise the contrasting character of the rural and urban riverside paths, while having regard to the needs of people with mobility difficulties. Design and maintain surfaces, lighting, signing, fascias, notices, fencing, benches and bins to complement the character of each path and reveal glimpses of the river and wider landscape where views are becoming obscured by recent scrub growth.

The Roads

This part of the Thames is distinguished by the absence of roads along its banks. Parks, gardens and historic waterfronts sweep down to the edge of the water and paths follow the river, untroubled by traffic. The villa landscape of the Thames between Hampton and Kew has sometimes been called the English Brenta. One only has to experience today's canalised and road-lined Brenta to realise how special the Thames has remained.

In the few places where roads run parallel to the river, such as at Hampton Court Road, Portsmouth Road, Cross Deep and Brentford High Street, the river edge is buffered by Albany Gardens, Seething Wells, the Queen's Promenade, Radnor Gardens and Waterman's Park. This combination of continuous riverside pedestrian public access without vehicles is most unusual for a city and holds much of the secret to the beauty of the Thames.

Car parking on the river edge is less successfully restrained. In places such as Ham and Kew parked cars detract from the rural peace and the Twickenham waterfront has become dominated by parking.

Policy LC 20: Conserve the unique river edge of continuous pedestrian public access, restricting vehicles and wherever possible removing car parking from the waterside. Consider the needs of people with mobility difficulties and the provision of alternative parking where necessary.